

WHAT IS CLAIMED IS:

1. A method for forming an image, which comprises
subjecting a photosensitive layer of a photosensitive
lithographic printing plate having a photosensitive layer
5 comprising a photopolymerizable composition formed on a
support surface to scanning exposure with a laser light
having a wavelength in a range of from 650 to 1,300 nm,
developing an image, and then further subjecting the
photosensitive lithographic printing plate having the
10 developed image to whole image exposure with a light
exposure energy of from 1 to 70 times larger than the
light exposure energy at the time of the laser light
scanning exposure.
2. The method for forming an image according to Claim
15 1, wherein the light exposure energy at the time of the
whole image exposure is at most 50 times larger than the
light exposure energy at the time of the laser light
scanning exposure.
3. The method for forming an image according to Claim
20 2, wherein the light exposure energy at the time of the
whole image exposure is from 1.2 to 30 times larger than
the light exposure energy at the time of the laser light
scanning exposure.
4. The method for forming an image according to Claim
25 3, wherein the light exposure energy at the time of the
whole image exposure is from 1.5 to 25 times larger than
the light exposure energy at the time of the laser light

scanning exposure.

5. The method for forming an image according to Claim 1, wherein a light intensity on the image-forming surface at the time of the whole image exposure is at least 10
5 mW/cm².

6. The method for forming an image according to Claim 5, wherein the light intensity on the image-forming surface at the time of the whole image exposure is from 15 to 700 mW/cm².

10 7. The method for forming an image according to Claim 1, wherein a temperature of the image-forming surface at the time of the whole image exposure is from 20 to 300°C.

8. The method for forming an image according to Claim 1, wherein a light source of the whole image exposure is
15 a mercury lamp.

9. The method for forming an image according to Claim 1, wherein a light exposure energy at the time of the whole image exposure is from 10 mJ/cm² to 10 J/cm².

10. The method for forming an image according to Claim
20 1, wherein the photopolymerizable composition of the photosensitive layer contains the following components

(A) to (D):

(A) an ethylenic unsaturated compound,

(B) a sensitizing dye absorbing a light having a
25 wavelength in a range of from 650 to 1,300 nm,

(C) a photopolymerization initiator, and

(D) a high molecular binder.

11. The method for forming an image according to Claim 10, wherein the component (D) is cyanine type dyes.

12. The method for forming an image according to Claim 10, wherein the component (C) is triazine compounds or
5 organic borates.

13. The method for forming an image according to Claim 10, wherein the respective components (A), (B), (C) and (D) of the photopolymerizable composition are in a weight ratio of (A):(B):(C):(D)=100:0.01-20:0.1-80:10-400.

10 14. The method for forming an image according to Claim 1, wherein an oxygen-shielding layer is formed on the photosensitive layer.

15. An apparatus for forming an image, which comprises continuously connecting the following steps (1) to (3):

15 (1) a scanning exposure step of subjecting a photosensitive layer of a photosensitive lithographic printing plate having a photosensitive layer comprising a photopolymerizable composition formed on a support surface to scanning exposure with a laser light having a
20 wavelength in a range of from 650 to 1,300 nm,

(2) a developing step of developing an image on the photosensitive lithographic printing plate after the scanning exposure, and

(3) a whole image exposure step of subjecting the
25 photosensitive lithographic printing plate after the development to whole image exposure with a light exposure energy of from 1 to 70 times larger than the light

exposure energy at the time of the laser light scanning exposure used at the step (1).

16. The apparatus for forming an image according to Claim 15, wherein the light exposure energy at the whole
5 image exposure step (3) is at most 50 times larger than the light exposure energy at the scanning exposure step (1).

17. The apparatus for forming an image according to Claim 16, wherein the light exposure energy at the whole
10 image exposure step (3) is from 1 to 30 times larger than the light exposure energy at the scanning exposure step (1).

18. The apparatus for forming an image according to Claim 17, wherein the light exposure energy at the whole
15 image exposure step (3) is from 1.2 to 25 times larger than the light exposure energy at the scanning exposure step (1).

19. The apparatus for forming an image according to Claim 15, wherein a light intensity on the image-forming
20 surface at the whole image exposure step (3) is at least 10 mW/cm².

20. The apparatus for forming an image according to Claim 19, wherein the light intensity on the image-forming surface at the whole image exposure step (3) is
25 from 15 to 700 mW/cm².

21. The apparatus for forming an image according to Claim 15, wherein a temperature of the image-forming

surface at the whole image exposure step (3) is from 20 to 300°C.

22. The apparatus for forming an image according to Claim 15, wherein a light source at the whole image exposure step (3) is a mercury lamp.

23. The apparatus for forming an image according to Claim 15, wherein the light exposure energy at the whole image exposure step (3) is from 10 mJ/cm² to 10 J/cm².